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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,131	09/06/2000	Hiroshi Yamaguchi	Q59329	9189

7590 07/13/2005

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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/656,131

Applicant(s)

YAMAGUCHI, HIROSHI

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 20 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 4/20/05 with respect to claims 1-24 have been fully considered but they are not persuasive.

2. Claims 1-7, 11, 13-15, 17-18, and 20 remain rejected under 35 U.S.C. 102(b) as being anticipated by Edgar (US 5,266,805), as was set forth in the prior Office Action of 2/4/05.

3. Claims 8-10, 16, and 19 remain rejected under 35 U.S.C. 102(b) as being anticipated by Hiramatsu (US 4,933,983), as was set forth in the prior Office Action of 2/4/05.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar (US 5,266,805) in view of Tung (US 3,758,193).

5. The Applicants present two arguments contending the Examiner's rejection of claims 1-7, 11, 13-15, 17-18, and 20 under 35 U.S.C. 102(b) as being anticipated by Edgar (US 5,266,805), one argument against the rejection of claims 8-10, 16, and 19 remain rejected under 35 U.S.C. 102(b) as being anticipated by Hiramatsu (US 4,933,983), and one final argument against the rejection of claim 12 under 35 U.S.C. 103(a) as being unpatentable over Edgar (US 5,266,805) in view of Tung (US 3,758,193), said rejections being set forth in the prior Office Action of 2/4/05. However, after studying the multiple references of

6. After summarizing the applied reference (Amendment of 4/20/05: page 16, lines 7-16; page 17, lines 1-3) the Applicant argues that Edgar fails to disclose "selecting a correction method... and deciding a range for application of each..." as in the claims (Amendment of 4/20/05: page 17, lines 4-19). The Examiner respectfully disagrees. Firstly, it is noted that Edgar discloses that multiple fill-in algorithms are available for application to correcting the

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imperfections (Edgar: column 5, lines 50-55), and that these fill-in algorithms are applicable to imperfections caused by visible versus non-visible transmissivity (Edgar: column 5, lines 60-65), or CCD characteristics (Edgar: column 10, lines 45-57), and dye characteristics (Edgar: column 10, lines 10-35), and depending on the type of defect map generated, the choice of a plurality of method applications is addressed by Edgar. Secondly, the Applicants argue that a deciding range is not disclosed. The Examiner respectfully disagrees, noting that by thresholding the intensity values generates values on the decision tree to generate the application of one of more correction methods (Edgar: column 8, lines 8, lines 50-67; column 9, lines 1-20) reads on this limitation, as well.

Secondly, the Applicants argue that Edgar fails to disclose the calculation as stipulated in claim 11 (Amendment of 4/20/05: page 18, lines 1-17). The Examiner respectfully disagrees. It is noted that the imperfections of all three visible and the infrared images are used in a subtractive process to generate a final defect map. The subtraction process inherently generates a “difference image which is due the different refractive indexes of visible and non-visible light”, as in the claim. Accordingly, the Examiner maintains that the limitation is met.

Thirdly, the Applicants argue that Hiramatsu fails to disclose a feature amount device for calculating in a plurality of different directions, as in the claims (Amendment of 4/20/05: page 19, lines 1-20). The Examiner respectfully disagrees. In the embodiment disclosed, Hiramatsu discloses scanning in a mainline direction which inherently includes left to right and right to left scanning (i.e. two directions) and uses the correction method for a short defect and a long defect in (Hiramatsu: column 29, lines 60-67; column 30, lines 1-42). Additionally, the disclosure of a sub-scanning processing also allows for directions perpendicular to the main line axis to a two

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dimensional scan and thus address the plurality of directions limitations (Hiramatsu: column 32, lines 1-20). Accordingly, the Examiner asserts that the limitation is met.

7. Lastly, the Applicants argue that Tung fails disclose calculating a high frequency deficiency as in the claims (Amendment of 4/20/05: page 20, lines 10-21; page 21, lines 1-20). The Examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). It is noted that Edgar by the generation of the imperfections based on the subtractive processes of the visible and non-visible images (Edgar: column 7, lines 1-19), and thus does not need to be provided by Tung. Tung only has to show that a calculation for high frequency is disclosed, which the Examiner asserts it does in the cited portion. Also, it is further noted that Edgar also discloses the manipulation of high frequency components for imperfection generation (Edgar: column 10, lines 60-67; column 11, lines 1-20), so contrary to the Applicants protestation (Amendment of 4/20/05: page 21, lines 12-15), the Examiner assert that one of ordinary skill in the art would consider the Tung teaching relevant to Edgar since the both references address the same problem of high frequency contribution to imaging.

A detailed rejection of claims 21-24 appears below.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Edgar.

Regarding claim 21, Edgar discloses wherein the plurality of types of correction methods comprises a vignetting method in which image information is corrected by reducing high frequency components of a spatial frequency of a defect portion and an area adjacent to the defect portion (Edgar: column 9, lines 53-67; column 10, lines 55-67; column 14, lines 10-45), as in the claim.

10. Claims 8-10, 16, and 19 remain rejected under 35 U.S.C. 102(b) as being anticipated by Hiramatsu (US 4,933,983).

Regarding claim 22, Hiramatsu wherein the final correction value calculation device obtains a final correction value by calculating weighting coefficients for each direction based on a density gradient and a distance between normal pixels calculated and stored for each direction (Hiramatsu: column 20, lines 23-43: “correct the defect by substituting... from data pixel picture elements around the defect), as in the claim.

Regarding claim 23, Hiramatsu discloses wherein the plurality of different directions from within defect portions radiates outwards from the defect portions (Hiramatsu: column 20, lines 23-43: “correct the defect by substituting... from data pixel picture elements around the defect), as in the claim.

Regarding claim 24, Hiramatsu discloses wherein the plurality of different directions from within defect portions comprises a plurality of scanning directions and wherein one of the plurality of scanning directions is a straight line in a direction going away from the defect

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portions and a plurality of the scanning directions are performed in directions 1 80 degrees opposite each other (Hiramatsu: column 31, lines 1-10: perpendicular to the main-line scanning direction with inherently discloses left to right and right to left scanning along the main axis), as in the claim.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection against the newly added claims presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad S. Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andy S. Rao
Primary Examiner
Art Unit 2613

asr
July 10, 2005

ANDY RAO
PRIMARY EXAMINER

